

CLAIMS

1. A photocurrent-generating fabric (1) intended to be used as a shade, awning, blind and swimming pool cover (4), characterized in that it comprises a layer of interconnected photovoltaic cells.
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2. The photocurrent-generating fabric (1) as claimed in claim 1, characterized in that the layer of cells is encapsulated in a thermoplastic resin.
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3. The photocurrent-generating fabric (1) as claimed in claim 1, characterized in that the layer of cells is covered with a thermoplastic film.
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4. The photocurrent-generating fabric (1) as claimed in one of claims 1 to 3, characterized in that a multilayer plastic sheet covers the rear side of the fabric.
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5. The photocurrent-generating fabric (1) as claimed in one of claims 1 to 4, characterized in that the photovoltaic cells (3) are distributed over the fabric (1) in a succession of rows, the spacing between two adjacent rows being chosen in such a way that the storage of said fabric on a polygonal tube, onto which it can be wound, allows the cells to be kept in a plane parallel to one of the sides of the polygon that defines the tube.
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6. The photocurrent-generating fabric (1) as claimed in one of claims 1 to 5, more particularly intended to be used as a pond or swimming pool cover, characterized in that it is provided with transverse bars (13) that rest in succession on the ground and on two feet (14) positioned on either side of a pond or swimming pool, so as to form a series of flats exposed to sunlight.
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7. The photocurrent-generating fabric (1) as claimed in claim 6, characterized in that the feet (14) that support the bars are of variable height.
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8. A support for winding and storing a photocurrent-generating fabric (1) intended to be used as a shade, awning, blind and swimming pool cover (4), characterized in that it comprises an axisymmetric tube (5) of uniform polygonal cross section, around the periphery of which the fabric can be wound.
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9. The support for winding and storing a photocurrent-generating fabric (1) as claimed in claim 8, in which the fabric (1) comprises a layer of interconnected photovoltaic cells (3) that are distributed in a succession of rows, characterized in that the length of the sides of the polygon is greater than the largest dimension of the cells and in that the edges (6) of the polygonal tube are rounded so that the winding and unwinding of the fabric are gradual.
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10. The support for winding and storing a photocurrent-generating fabric (1) as claimed in claim 9, intended to be used as a shade, awning or blind, characterized in that the tube (5) is provided with lateral supports (9) and in that it is also joined to extension arms (7) suitable for tensioning the fabric (1), said extension arms being capable of pivoting owing to the action of at least one electrically operated cylinder (10), whether automated or not, in such a way that the fabric remains perpendicular to the sunlight over the daily path of the sun.
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11. The support for winding and storing a photocurrent-generating fabric (1) as claimed in one of claims 8 to 10, characterized in that it includes a rotary electrical connection member
5 that can transfer the electricity generated by said fabric to an external entity, such as a building or an electrical appliance.

12. The support for winding and storing a photocurrent-generating fabric (1) as claimed in
10 claim 11, characterized in that the rotary member incorporates two disks (16, 17), these being respectively:

- a first, electrically insulating, disk (17) fastened to the tube (5) and comprising two electrically conducting concentric circular blades (20, 21) connected to the two respective electrodes emerging from the set of photovoltaic cells; and
- a second, static disk (16) fastened to the support and mounted coaxially with the tube (5) and with the first disk (17), equipped with two electrical contactors (15) that project toward the disk (17) so as to be permanently in contact with the two circular blades (20, 21), said contactors being connected to the 25 two electrical supply wires of the electrical circuit of the external entity.

13. The support for winding and storing a photocurrent-generating fabric (1) as claimed in
30 claim 11, characterized in that the rotary member incorporates:

- an electrically insulating static cylindrical peripheral ring (25) fastened to the support of the tube (5) and incorporating two electrical contactors 35 (24) that extend on either side of the wall defining said ring and are connected to the two electrical supply wires of the electrical circuit of the external entity; and

- an insulating cylinder (22) coaxial with the ring (25) and fastened to the tube (5), which cylinder is mounted coaxially with respect to the axis of rotation of said tube (5) and is capable of rotating
5 inside the ring (25), said cylinder being provided with two electrically conducting and likewise cylindrical blades (23) connected to the two respective electrodes emerging from the set of photovoltaic cells, the axis of revolution of the two blades being coincident with
10 the axis of revolution of the cylinder (2), said blades being intended to be in permanent contact with the contactors (24) of the ring (25).